

**Abstract**

A process for producing powder coating materials, comprising the following steps:

- preparing a polyaddition resin melt using a Taylor reactor (1) at a temperature above the melting temperature of the polyaddition resin;
- supplying the polyaddition resin melt to a homogenizing means (16);
- adding a crosslinker to the homogenizing means (16) to prepare a components melt;
- cooling the components melt on a cooling means (20) for solidification to the end product;
- supplying the end product to a pulverizing means

and apparatus according to Fig. 1 for implementing this process

having a Taylor reactor (1) with an inlet region (8) for supplying the process materials to prepare a polyaddition resin melt and having an outlet (10) for delivering the polyaddition resin melt,

having a homogenizing means (16) which comprises at least one first and second inlet for supplying the polyaddition resin melt delivered by the Taylor reactor, and the crosslinker, and also comprises an outlet via which a product can be delivered by the homogenizing means (16).